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Applicant: Armand NACHEF

International
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For: **METHOD FOR PROCESSING AND TRANSMITTING
DIGITAL DATA IN A MOBILE TELEPHONE
NETWORK, PARTICULARLY USING THE GSM
STANDARD, AND EMBEDDED MICROCHIP SYSTEM**

McLean, Virginia
February 22, 2002

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The following amendments and remarks are submitted prior to examination of the
above-identified application on the merits.

IN THE SPECIFICATION:

Before the paragraph numbered [0001], insert the following heading:

--BACKGROUND OF THE INVENTION

1. Field of the Invention.--;

Before the paragraph numbered [0006], insert the following heading:

--2. Description of the Related Art.--;

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Before the paragraph numbered [0025], insert the following heading:

--SUMMARY OF THE INVENTION--;

Before the paragraph numbered [0034], insert the following heading:

--BRIEF DESCRIPTION OF THE DRAWINGS--;

Before the paragraph numbered **[0036]**, insert the following heading:

--DESCRIPTION OF THE PREFERRED EMBODIMENTS--;

Page 17, after paragraph **[0116]**, insert the following new paragraph:

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--[0117] While this invention has been described in conjunction with specific embodiments thereof, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art. Accordingly, the preferred embodiments of the invention as set forth herein, are intended to be illustrative, not limiting. Various changes may be made without departing from the true spirit and full scope of the invention as set forth herein and defined in the claims.--

Page 23, after the heading "CLAIMS" and before the first claim, insert the following:

--We claim:--

IN THE CLAIMS

Please substitute amended claims 1-12 as presented below for the same-numbered claims that were pending prior to the filing of this paper. A marked-up copy of the amended claims is attached.

1 1. (Amended) A method for processing digital data in a mobile telephone
2 network comprising a mobile unit operatively connected to a smart card having an
3 embedded chip, said chip having an information processor and a data storage unit, said
4 data storage unit including a reporter-type application program, said method comprising:
5 receiving, in a remote server, an event sent from a mobile unit; and
6 delegating, in response to receiving said event, execution of a smart-card
7 operation to an additional application program stored in a data storage unit of the remote
8 server.

1 3. (Amended) A method according to claim 2, wherein the reporter-type
2 application program retransmits to the remote server a data characteristic of said event
3 received from said mobile unit, and wherein the additional application program in the
4 remote server executes, upon reception of said data characteristic, at least one of said
5 instructions associated with said at least one predetermined application, and retransmits
6 results of said execution to said mobile unit to said embedded chip in the smart card.

1 4. (Amended) A method according to claim 3, wherein said embedded
2 chip is under the control of an operating system, and
3 wherein said remote server transmits said execution results including
4 commands to said operating system of said embedded chip in order to perform a given
5 operation, and
6 wherein results of said given operation are retransmitted to the remote
7 server.

1 5. (Amended) A method according to claim 1, wherein the additional
2 application program stored in the remote server is a master-type application program,
3 wherein a slave-type application program is stored in said storage unit of
4 said embedded chip of the smart card,
5 wherein said slave-type application program receives commands from the
6 master-type application program and executes said commands using said information
7 processor of said embedded chip of the smart card, and
8 wherein said slave-type application program retransmits results of said
9 execution of commands to the master-type application program.

1 6. (Amended) A method according to claim 5, wherein at least one of the
2 reporter-type application program and the slave-type application program is an
3 autonomous-type application program which directly executes a pre-established part of
4 said at least one predetermined application in said embedded chip of the smart card.

1 7. (Amended) A method according to claim 1, wherein said mobile
2 telephone network complies with a GSM standard, and wherein said reporter-type
3 application program complies with a GSM 11.14 standard.

1 9. (Amended) A smart card adapted for connection to a mobile unit,
2 comprising:
3 an embedded chip which includes:
4 (a) an information processor, and
5 (b) a data storage unit having a reporter-type application program
6 stored therein, said reporter-type application program adapted to generate information
7 delegating execution of a smart-card operation to an additional application program
8 stored in a data storage unit of a remote server, said reporter-type application program
9 generating said information in response to an event received from said mobile unit.

1 16. A method according to claim 1, wherein the reporter-type application
2 program retransmits to the remote server a data characteristic of said event received from
3 said mobile unit, and wherein the second application program in the remote server
4 executes, upon reception of said data characteristic, at least one of said instructions
5 associated with said at least one predetermined application, and retransmits results of said
6 execution to said mobile unit to said embedded chip in the smart card.

1 17. A method according to claim 1, wherein said embedded chip is under the
2 control of an operating system, and
3 wherein said remote server transmits said execution results including
4 commands to said operating system of said embedded chip in order to perform a given
5 operation, and
6 wherein results of said given operation are retransmitted to the remote
7 server.

1 18. A method according to claim 2, wherein the application program stored in
2 the remote server is a master-type application program,
3 wherein a slave-type application program is stored in said storage unit of
4 said embedded chip of the smart card,
5 wherein said slave-type application program receives commands from the
6 master-type application program and executes said commands using said information
7 processor of said embedded chip of the smart card, and
8 wherein said slave-type application program retransmits results of said
9 execution of commands to the master-type application program.

1 19. A method according to claim 3, wherein the application program stored in
2 the remote server is a master-type application program,
3 wherein a slave-type application program is stored in said storage unit of
4 said embedded chip of the smart card,
5 wherein said slave-type application program receives commands from the
6 master-type application program and executes said commands using said information
7 processor of said embedded chip of the smart card, and
8 wherein said slave-type application program retransmits results of said
9 execution of commands to the master-type application program.

1 20. A method according to claim 18, wherein at least one of the reporter-type
2 application program and the slave-type application program is an autonomous-type
3 application program which directly executes a pre-established part of said at least one
4 predetermined application in said embedded chip of the smart card.

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IN THE ABSTRACT

Please replace the Abstract as originally filed with the following new abstract:

ABSTRACT OF THE DISCLOSURE

A system for processing and transmitting digital data in a mobile communications network includes a smart card connected to a mobile telephone. The smart card includes an embedded chip which stores an SIM Toolkit application program. In operation, the SIM Toolkit program transmits information from the mobile telephone to a remote server through the network. An application program at the remote server receives the transmitted information and then executes an operation usually performed by conventional smart cards in response to the received information. The remote server then transmits the results of the operation back to the smart card so that, for example, a predetermined function may be performed in the mobile telephone.

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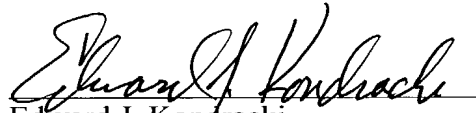
REMARKS

Claims 1-20 are pending. Claims 1-12 have been amended to comply with the requirements of U.S. claim practice and new claims 13-20 have been added to provide a more comprehensive scope of protection for the invention. Also, the specification has been amended to include section headers, and a new abstract has been provided.

It is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of the application is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR § 1.136. Please charge any shortage in fees due in connection with this application, including extension of time fees, to Deposit Account No. 50-1165 (Attorney Docket No. T2146-907758) and credit any excess fees to the same Deposit Account.

Respectfully submitted,


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Marked-Up Copy of the Amended Claims

1 1. (Amended) A method [Method] for [transmitting and] processing
2 digital data in a mobile telephone network comprising a mobile unit [of mobile equipment
3 cooperating with] operatively connected to a smart card having an embedded chip, said
4 chip having [system (2 – 20) equipped with] an information [processing] processor and a
5 data storage [means] unit, [characterized in that it consists, by means of] said data storage
6 unit including a reporter-type application program, [at least a first particular piece of
7 software (21) of a so-called reporter type, stored in said data storage means of said
8 embedded system (2 – 20), of] said method comprising:

9 receiving, in a remote server, an event sent from a mobile unit; and

10 delegating [the], in response to receiving said event, execution of [an] a
11 smart-card operation [performed in said embedded system in response to at least one
12 event received from said mobile equipment, to at least one associated piece of software
13 (30M)] to an additional application program stored in a data storage [means] unit of [at
14 least one] the remote server [(3)].

1 2. (Amended) A method [Method] according to claim 1, [characterized in
2 that the information processing and] wherein the data storage unit of the smart card stores
3 at least one program for [means of said embedded system are designed to store at least
4 some pieces of software capable both of] controlling said mobile [equipment] unit by
5 sending [given] commands and [of] for reacting to events [issuing] sent from [this
6 equipment by] the mobile unit, said program for reacting to said events executing
7 instructions associated with said events, in order to perform functionalities associated
8 with at least one predetermined application.

1 3. (Amended) A method [Method] according to [any of the preceding
2 claims] claim 2, [characterized in that said piece(s) of software of] wherein the reporter-
3 type [21] application program retransmits to [said associated piece(s) of software (30M)]
4 the remote server a data characteristic of said [events] event received from said mobile
5 unit [equipment (1 – 10)], and [in that said associated piece of software (30M)]
6 wherein the additional application program in the remote server executes, [using
7 information processing means of said remote server (3),] upon reception of said data
8 characteristic [data], [all or some] at least one of said instructions associated with said at
9 least one [of said] predetermined [applications] application, and retransmits results of said
10 execution to said mobile unit [equipment (1 – 10) and/or to said embedded microchip
11 system (2 – 20)] to said embedded chip in the smart card.

1 4. (Amended) A method [Method] according [any of the preceding claims,
2 characterized in that,] to claim 3, wherein said embedded [system (2 – 20) being] chip is
3 under the control of [a given] an operating system, [said associated piece(s) of software
4 (30M) implemented in one of] and
5 wherein said remote [servers (3)] server transmits said execution results [in
6 the form of] including commands [sent directly] to said operating system of said
7 embedded chip in order to perform a given operation, and [in that]
8 wherein results of [this] said given operation are retransmitted to [said
9 associated piece of software (30M)] the remote server.

1 6. (Amended) A method [Method] according to claim 5, [characterized in
2 that said pieces of software of] wherein at least one of the reporter-type application
3 program [(21) and/or] and the slave-type application program [(22) types are associated
4 with an additional functionality of a so-called] is an autonomous-type application
5 program[, so that these pieces of software (21, 22) can execute directly] which directly
6 executes [in said embedded microchip system (2 – 20)] a pre-established part of said at
7 least one predetermined [applications] application in said embedded chip of the smart
8 card.

1 7. (Amended) A method [Method] according to [any of the preceding
2 claims, characterized in that] claim 1, wherein said mobile telephone network complies
3 with [the] a [standard known as] GSM standard, and wherein said reporter-type
4 application program [pieces of software comply] complies with [the] a GSM 11.14
5 standard.

1 8. (Amended) A method [Method] according to [any of the preceding
2 claims, characterized in that,] claim 1, wherein said telephone network [comprising]
3 includes at least two distinct transmission channels, one being a [so-called] voice data
4 channel and another being a [so-called] message channel, and wherein said transmitted
5 digital data [is constituted by] includes messages of a [so-called] short type comprising
6 140 octets or 160 septets transmitted through [this] said message channel.

1 9. (Amended) A smart card adapted for connection to a mobile unit,
2 [Embedded system] comprising:
3 an embedded chip which includes:
4 (a) an information [processing] processor, and
5 (b) a data storage unit [means, said embedded system being designed
6 to cooperate with a unit of mobile equipment, characterized in that it comprises at least a
7 first particular piece of software (21) of a so-called] having a reporter-type application
8 program[,] stored therein, [in said storage means of said embedded system (2 – 20),
9 designed to delegate the] said reporter-type application program adapted to generate
10 information delegating execution of [an] a smart-card operation [performed in said
11 embedded system in response to at least one event received from said mobile equipment

12 to at least one piece of associated software (30M)] to an additional application program
 13 stored in a data storage [means] unit of [at least one] a remote server [(3)], said reporter-
 14 type application program generating said information in response to an event received
 15 from said mobile unit.

1 10. (Amended) A smart card [Embedded system] according to claim 9,
 2 [characterized in that, said associated piece(s) of software (30M) implemented in said
 3 remote server(s) (3) being of a so-called] wherein the additional application program
 4 stored in the remote server is a master-type application program, [it] and
 5 wherein [stores in its said data storage means at least one second particular
 6 piece of software (22) of a so-called] a slave-type application program is stored in the
 7 data storage unit of said embedded chip of the smart card, said slave-type application
 8 program receiving [designed to receive] commands from the additional application
 9 program of the remote server [one of said pieces of software of the master type (30M)
 10 that is associated with it, to execute], said slave-type application program executing said
 11 commands using said information processor [processing means of said embedded system
 12 (2 – 20)] and [to retransmit] retransmitting results of said execution of commands to [said
 13 associated piece of software of the master type (30M)] the additional application program
 14 of the remote server.

1 11. (Amended) A smart card [Embedded system] according to [either of
 2 claims 9 and 10, characterized in that said pieces of software of] claim 9, wherein at least
 3 one of the reporter-type application program [(21) and/or] and slave-type application
 4 program [(22) types are associated with an additional, so-called] is an autonomous-type
 5 application program which [functionality, so that these pieces of software can execute]

1 12. (Amended) A smart card [Embedded] system according to [any of
2 claims 9 through 11, characterized in that it is constituted by a] claim 9, wherein the smart
3 card [of the so-called] is a SIM type [(2)] card.